Remarks

The Examiner has rejected claims 1-9 and 11-14 under 35 U.S.C. 102(b) as being anticipated by Shah et al. (US 5,127,837). The Examiner has rejected claim 10 under 35 U.S.C. 103(a) as being unpatentable over Shah et al. (US 5,127,837).

Claim 1:

In support of the rejection of independent claim 1, the Examiner states Shah et al. teach "a system for coupling a heat sink to an electrical device independently of a clamping member that is used to place a coupling force between one or more electrical devices and a substrate to which the one or more electrical devices are to be electrically connected, the system comprising: a clamping member (Fig. 2, #14, #52, #54 and Fig. 10, #63) adapted to push (col. 9, lines 1-2) the one or more electrical devices (Fig. 10, #12) against the substrate (Fig. 9, #68), to assist in electrical connection between the one or more electrical devices and the substrate, the clamping member defining a through-hole (Fig. 1, for #55 in #52 and Fig. 10, #63) leading to each electrical device; a heat-conducting member (Fig. 1, #55 and #56) in a through-hole of the clamping member and adapted to thermally contact the electrical device to conduct heat into or out of the electrical device; a resilient member (col. 7, line 32) located within the clamping member through-hole in which the heat-conducting member is located, for urging the heat-conducting member into thermal contact with the electrical device; and a heat sink (Fig. 1, #58) in thermal contact with the heat-conducting member."

In response to the Examiner's rejection, the Applicant has amended claim 1 to clarify that a lower surface of the heat-conducting member includes one or more relief volumes that prevent the lower surface of the heat-conducting member from contacting a top surface of one or more

components of the electrical device. No new matter has been added to claim 1.

The Applicant respectfully contends that Shah et al. does not disclose a lower surface of the heat-conducting member including one or more relief volumes that prevent the lower surface of the heat-conducting member from contacting a top surface of one or more components of the electrical device. Rather, as shown in Fig. 1 and 2 of Shah et al., the "spring-loaded plunger 55 has an enlarged base portion 56" which "biases the chip carrier 12 into desired engagement with the underlying projecting terminal portions 34t of the plungers 34 mounted in housing portion 16 comprising the floor of socket 14. (col, 7, lines 32-37) The "enlarged base portion 56" of Shah et al. is plainly does not prevent the heat-conducting member from contacting those portions of the electrical device that would otherwise be harmed by the pressure of the heat-conducting member against the electrical device, as described in Applicant's specification (page 7, lines 17-23).

As amended, claim 1 is clearly patentable over the cited reference.

Claims 2-3 and 5-12:

Claims 2-3 and 5-12 are dependent on claim 1, and as such are patentable for at least the same reasons set forth above for claim 1.

Claim 13:

In support of the rejection of independent claim 13, the Examiner states Shah et al. teach "a system for coupling a heat sink to an electrical device independently of a clamping member that is used to place a coupling force between one or more electrical devices and a substrate to which the one or more electrical devices are to be electrically connected, the system comprising: a clamping member (Fig. 10, #63) adapted to push (col. 9, lines 1-2) the one or more electrical

devices (Fig. 10, #12) against the substrate (Fig. 9, #68), to assist in electrical connection between the one or more electrical devices and the substrate, the clamping member defining a through-hole (Fig. 1, for #55 in #52) leading to each electrical device; a heat-conducting post (Fig. 1, #55) in a through-hole of the clamping member with an enlarged end (Fig. 1, #56) adapted to thermally contact the electrical device to conduct heat into or out of the electrical device; a heat sink (Fig. 1, #58) in thermal contact with the heat-conducting post; and a spring (see Fig. 1 and col. 7, line 32) in the through-hole in the clamping member adapted to be compressed between the clamping member and the enlarged end of the post, to assist in thermal contact between the enlarged end and the electrical device."

In response to the Examiner's rejection, the Applicant has amended claim 13 to clarify that the enlarged end of the heat-conducting post includes one or more relief volumes that prevent the enlarged end of the heat-conducting post from contacting a top surface of one or more components of the electrical device. No new matter has been added to claim 13.

The Applicant respectfully contends that Shah et al. does not disclose an enlarged end of the heat-conducting post including one or more relief volumes that prevent the enlarged end of the heat-conducting post from contacting a top surface of one or more components of the electrical device, for the reasons stated above for claim 1. As amended, therefore, claim 13 is clearly patentable over the cited reference.

Claims 14:

Claim 14 is dependent on claim 13, and as such is patentable for at least the same reasons set forth above for claim 13.

Each of the Examiner's rejections has been addressed. Accordingly, it is respectfully

submitted that the application is in condition for allowance. Early and favorable action is requested.

If for any reason this Response is found to be incomplete, or if at any time it appears that a telephone conference with counsel would help advance prosecution, please telephone the undersigned in Westborough, Massachusetts, (508) 898-1501.

Respectfully submitted,

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